MILLS (C. K.)

SYPHILITIC INSANITIES AND PSEUDO INSANITIES, WITH ESPECIAL REFERENCE TO THEIR PROGNOSIS AND TREATMENT.

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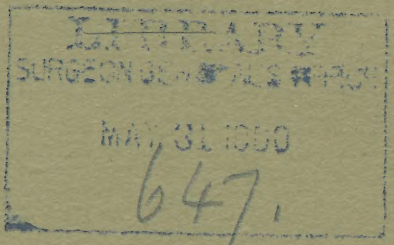

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SYPHILITIC INSANITIES AND PSEUDOINSANITIES, WITH ESPECIAL REFERENCE TO THEIR PROGNOSIS AND TREATMENT.*

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LET me first express my thanks to the president and members of the New York Academy of Medicine for the honor conferred in asking me to take part in this symposium on one of the most important and practical of medical subjects. The greatest difficulty met in the preparation of these remarks has been that caused by the necessity of so restricting them as not to extend their reading beyond the time justly allotted for their presentation.

In approaching from any direction the subject of nervous syphilis it is of first importance to bear in mind that 3 classes of disease-processes must always be taken into consideration, namely, (1) true syphilitic or specific lesions due to the continuing action of the specific virus; (2) secondary softenings, indurations and degenerations; and (3) parasyphilitic (metasyphilitic) affections, degenerative diseases the more or less remote consequences of the specific virus. These parasyphilitic diseases are the issue of syphilis; they flow out of it, but they are not its first and most direct results. They are "products of its action, under its influence, and without it in all probability would not be present; but, although thus proceeding from syphilis, are not of a syphilitic (specific) nature" (Mickle). In all cases in which a clear diagnosis of specific nondegenerative lesions, without marked secondary

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changes, is made out, the prognosis is more or less good, and at some stage of such cases specific medication should be actively employed. A somewhat large percentage of cases have a combination of true specific lesions with secondary degenerations, and in another class of cases equally large, or perhaps larger, the true specific lesions are combined both with secondary degenerations and degenerative parasyphilitic disease. In both of these classes the true specific lesions are those which can be much influenced.

Omitting mental affections due to inherited syphilis and syphilophobia (melancholia or monomania due to the fear of the consequences of syphilitic infection, this not being in a strict sense a true syphilitic insanity), the most important forms of syphilitic insanity are as follows: (1) Syphilitic mental disorders due to the circulation in the blood of the specific toxin (syphilemia), neither specific lesions with detectable symptoms nor degenerative disease being present; (2) true dementia paralytica or general paralysis of the insane, in its typical uncomplicated form a parasyphilitic disease; and (3) syphilitic pseudoparesis. While true dementia paralytica is a parasyphilitic progressive degenerative disease, its development is sometimes consecutive to true specific lesions, or specific and degenerative lesions may coincide, facts which make it possible to make somewhat numerous clinical subtypes by special groupings of lesions and symptoms.

Under the first of the above heads, which may be described in brief as the syphilitic toxemic insanities, are to be placed those forms of profound insanity which are not uncommonly designated as syphilitic melancholia (neurasthenic melancholia, hypochondriac melancholia), syphilitic mania, and syphilitic acute dementia (sometimes designated as apathetic or stuporous insanity due to syphilis). Let me briefly touch upon each of these psychic affections. As leading up to the discussion of syphilitic melancholia of profound type, the occurrence of a true syphilitic neurasthenia, a state of physical and mental exhaustion comparable to that which is often seen outside of the domain of syphilis, must be borne in mind. This is usually most

marked in the secondary period of syphilis or may be observed at any stage. It is not to be confounded either with a disorder of nutrition, which results from the excessive use of antisyphilitic remedies, or with the psychic disorders aroused by apprehension and remorse. Syphilitic melancholia is most frequently observed in the second or in the tertiary stage of syphilis when some of the specific lesions of the disease may be present in the extrinsic tissues of the nervous system, but these are not of such a character as to produce symptoms of the nature shown. The disease is, in other words, clearly a toxemia, whatever other conditions may be present or imminent.

It is characterized by more or less profound depression of personality, by depressive hallucinations, by hypochondriac delusions or by delusions of suspicion, persecution, poisoning, or of unseen agencies of evil, the patient not infrequently showing marked suicidal tendencies. In syphilitic mania the patients have hallucinations and delusions often rapidly changing, with more or less incoherence, the whole associated with a state of mental exaltation which may vary in degree from hypomania to mania of the delirious form. Instead of either melancholia or mania, in cases by no means rare, the patient in whose blood the luetic virus is coursing presents an apathetic, torpid, or even a stuporous mental state, which may vary from an intellectual obtuseness so slight as to be scarcely noticeable by a careless observer, or a condition so marked as to give good reason for the designation stuporous insanity or acute dementia due to syphilis, while between these two extremes are to be found almost every grade of apathy or torpor. On the negative side the patients set apart as belonging to these three forms of syphilemic insanity show no evidences of true specific lesions, focal or diffuse, or of primary degeneration of the noble elements of the nervous system—no spasms, no palsies, no optic neuritis, no ophthalmoplegias and not necessarily any changes in any of the deep reflexes. Of course, instead of a case the mental symptoms of which are simply the indexes of a pure, uncomplicated toxemia, we may have cases in which, associated with the toxemia, are the evidences of more or less numerous organic changes.

The importance of ophthalmoscopic examinations in cases with neurasthenic, hysterical, melancholic, maniacal or stuporous symptoms, and in which syphilitic toxemia is suspected, cannot well be overestimated. Encephalic specific lesions of membranes, vessels and nerves may be impending or beginning, and yet no focal or special manifestations of such lesions can be discovered by ordinary investigation. The ophthalmoscope, however, may reveal beginning neuroretinal changes or even a more or less pronounced optic neuritis. These cases form a transition-series between cases of profound, but uncomplicated, syphilemia and cases in which the specific lesions are of such a character as to easily proclaim their presence by classical symptoms. It might be worth while to recall a single case of this kind.

This patient had a clear history of syphilis. He had fallen into a peculiar mental state and presented evidences of general nervous and muscular weakness. The man's condition mentally was one of slight apathy with timidity, with also a lack in his powers of attention, and at times decided emotionality. Ophthalmic and ophthalmoscopic examination showed that, although both his vision and his fields of vision were normal, the fundus showed a marked neuroretinitis with perivasculitis, and in a very short time close investigation revealed slight evidences of implication of other cranial nerves.

It is evident that the insanities and pseudoinsanities due to syphilitic toxemias without recognizable organic lesions constitute a class of cases in which prognosis is relatively good and in which therefore treatment should be early and actively employed. Incurable dementia and chronic mania should not be the usual termination of such cases, and these results are sometimes due to the nonrecognition of the fact that the melancholia, mania, or stupor is the psychic expression of a virus that only awaits elimination by a skilful and bold therapeutist. The mercurial or the mixed treatment is in my experience the most applicable to these cases, and the latter is best carried out by active mercurial inunction with rapidly increasing daily amounts of potassium, sodium or lithium iodid. The constitutional impression of mercury should soon be obtained, and the treatment with iodid may in some instances be car-

ried forward after the most approved method of increasing the daily amount taken. In some cases in which perhaps inherited predisposition to mental disorder or constitutional weakness plays an important part, even with the release of the patient from the domination of the specific virus, the mental health is not fully established. The mistake is too often made, however, of treating these cases simply with rest, tonics, nutrients and other ordinary but appropriate measures for neurasthenia, hystero-neurasthenia and melancholia of nonluetic origin.

With regard to the etiologic relations between syphilis and general paralysis of the insane I shall simply give my conclusions, the time not being sufficient to allow even the mention of the reasons therefor. So much time and labor have already been devoted to the statistical study of this question that any new tabulations of cases with or without autopsies would not add much that is important to our knowledge of the subject. I hold to the view that tabes (locomotor ataxia) and paralytic dementia are practically the same disease; that syphilitic pseudotabes and pseudoparesis are affections strictly comparable; and that a distinction can and should be made between syphilitic pseudotabes or pseudoparesis and degenerative tabes or general paralysis, although the latter are usually remotely of syphilitic origin. True uncomplicated tabes and general paralysis are parasyphilitic diseases. More and more as my experience has extended the conviction is increased that the tabetic disease, whether peripherospinal or cerebral, is in the vast majority of cases syphilitic in origin. I believe that at least 80% to 90% of all general paretic cases can be accounted to syphilis. A specific toxin dwells in the blood of the syphilized individual, where it may stay for years or forever, inert and innocuous, or under conditions favoring morbific activity it may set up disease of bone, membrane, vessel, or other tissue; may with more directness poison the true nerve-elements; or it may happen that its dire influence is exerted consecutively or coincidentally upon the tissues and organs which nourish and protect the

nervous system, or upon the noble elements of this system. Holding to the views just expressed regarding the identity of ordinary tabes with the degenerative type of general paralysis, my views as to the prognosis and treatment of this affection can be briefly expressed. The diagnosis of the disease once clearly made, no hope of absolute cure should ever find place in the physician's mind; nor should it be held out to the frequently hopeful patient unless it be for the purpose of making less distressing his weary descent. He should be kept, if possible, from falling into the hands of those who, whether in the profession or out of it, offer delusive hopes in order to transfer the coin in one pocket to another less well filled.

Syphilitic pseudoparesis is a disease by far more common than pseudotabes, and it has for its chief lesions pachymeningitis, leptomeningitis, meningoencephalitis, cranial neuritis, and vascular disease, arterial, venous, and capillary, and not infrequently isolated gummata or a few more or less disseminated gummatous deposits. In addition to these primary lesions of pseudoparesis, sooner or later, and usually soon, secondary softenings and indurations occur in various parts of the brain. In order that pseudoparesis shall exist, multiple specific lesions must be present. An isolated syphilitic neoplasm or several such growths; disease of a single or of several cranial nerves; gummatous meningitis in one or several places; and even widespread vascular disease —any one group of these lesions or any dual combination of such groups of lesions will not give us a symptom-picture that deserves the name of syphilitic pseudoparesis; in other words, cerebral syphilis may exist in several well-known types and with serious symptoms and yet the disease may not properly receive this designation. When vessels, membranes, nerves, and above all when the cortex become more or less implicated in an inflammatory disease due to syphilis, that affection will give with more or less verisimilitude the symptoms of degenerative general paralysis.

Syphilitic pseudoparesis is a disease of good prog-

nosis, indifferently good prognosis, or bad prognosis, according to the stage when it comes into the hands of the therapeutist. Like the rare cases of syphilitic pseudotabes uncomplicated by neuronal degenerations, if recognized very early, and vigorously attacked, it may yield the most brilliant results. The threatened secondary necroses and degenerations should be always before him and urge him to activity in the use of his measures. If not, and the disease has moderately advanced, the prognosis becomes relatively less favorable. When numerous vessels have closed, when the true nervous elements have disappeared as the result of necrobiosis, or have been transformed through imperfect nutrition into indurated masses of mixed tissues, when membranes have become fibrous and incapable of change, the prognosis can no longer be said to be good, and yet the time for the entire discontinuance of treatment has not arrived. The patient should still be plied with measures intended to relieve recent and active inflammatory processes, to remove recently formed morbid tissues and even to increase somewhat the contraction of fibroid masses. A stage of transition and often one in which the tendency is to halting or regression of the specific lesion has been reached, and now the remedies used should be given in more moderate doses.

A useful practical comparison can be made between spinal syphilis, and nonpsychic cerebral syphilis, especially in their relations to prognosis and treatment. The lesions of spinal syphilis are osseous, membranous, vascular, or myelic, or combinations of these, the most frequent of all true specific lesions being the vascular and the meningomyelitic. As to onset, development, course and probable outcome, the vascular and meningomyelitic spinal disorders can be more or less closely paralleled with the syphilitic insanities and pseudoinsanities. One form of acute spinal meningomyelitis usually appears comparatively soon after primary infection, most frequently in about 18 months or less. The disease runs a rapidly destructive or fatal course in spite of treatment. The irritative and paretic symptoms in these cases may or may not

increase rapidly at first, but in any case culminate with suddenness and rapidity, complete motor paralysis and high anesthesia often occurring, the patient soon succumbing. A comparable form of rapid syphilitic pseudoparesis is met with, although it is of rare occurrence. The prognosis in both sets of cases is unfavorable, and it is only in exceptional instances that very active specific medication in the prodromic period saves the spinal case from severe and permanent paralysis or death, and the cerebral case from profound dementia or death. A less explosive, but otherwise similar form of syphilitic vascular and meningomyelitic disease occurs at almost any period after infection, often after many years. The patient under rest, time and active treatment, especially under large doses of both mercury and iodid, makes a partial and often a large degree of recovery. In like manner, cases of acute or subacute syphilitic pseudoparesis come on long after infection and largely recover, although the persistent psychic degradation is comparatively greater than the corresponding myelic paralysis. The most common chronic form of spinal meningomyelitis is now well known under such names as Erb's syphilitic spinal paralysis and spinal spastic paraplegia. On the one hand, I need only say that I have never seen a case of this disease completely or approximately cured, and, on the other hand, I have scarcely ever observed a case that was not benefited in one or more important respects at some stage of its progress. The parallels that can be drawn between this spinal affection and a common type of chronic pseudoparesis is perhaps closer than in the case of any of the other acute or chronic specific spinal diseases. This chronic cerebral affection which so closely simulates true general paralysis, has, like Erb's paralysis, a chronic and often somewhat remitting course, some real and some delusive periods of improvement, and slow progress to a mind-destroying termination. One need not go far to see the reason. In both cases meningeal and vascular alterations of a permanent character take place, fibroid conditions of the membranes with obliteration of fine vessels and consequent

necrosed areas are irregularly diffused throughout the encephalon in the one instance, and throughout the spinal cord in the other. Treatment benefits the more recent and the recurring specific lesions, and keeps in check serious general toxemia, but cannot restore destroyed neurons.

Some of my conclusions regarding the prognosis and treatment of syphilis of the nervous system, and especially regarding syphilitic insanities and pseudo-insanities,—conclusions derived in part from the facts, experiences, and theories briefly presented in this communication, and partly from data to which I have not time to refer—are as follows:

The prognosis and treatment of syphilis of the nervous system must always be based on a thorough study of differential diagnosis, the treatment requiring, in addition, a careful investigation of special forms and of individual cases, the latter including the past history of treatment and a study of idiosyncrasies.

In considering both prognosis and treatment it is of the first importance to clearly appreciate the distinction between diseases with specific lesions and parasyphilitic or metasyphilitic affections; the former are improvable or approximately curable, the latter can not be cured and are as likely to be harmed as benefited by the usual and unusual therapeutic procedures adopted because of a history of syphilis.

The most improvable and curable of syphilitic diseases are those with recent specific lesions, such s young gummata, recent osseous disease, recent meningitis, recent encephalitis or myelitic infiltration recent perineuritis, and recently developed arterial disease—all these, be it noted, being lesions which do not primarily implicate the true nerve elements. In proportion to their destructive involvement the prognosis will be unfavorable and treatment unavailing.

In the discussion of prognosis and treatment practical good results from a consideration of the method of onset of the improvable and curable types of nervous syphilis. Cases of subacute development are relatively most hopeful; acute cases may be rapidly fatal or destructive, but can be benefited by early

recognition, followed by prompt and energetic treatment; cases slowly developed and chronic in course, best illustrated by Erb's syphilitic spinal paralysis, and the most common type of chronic pseudoparesis, can often be helped but are never cured by antisyphilitic or other treatment, the reason being that in these cases associated with meningeal, myelitic and vessel disease are resultant necroses, indurations and secondary degenerations. Specific lesions of the nervous system occurring within a year after primary infection are often rapidly fatal, or at least rapidly destructive, but at times their course can be stayed by very early and very energetic treatment.

A true syphilitic pseudotabes may be met with, but is extremely rare. It is a disease having for its lesions pachymeningitis, leptomeningitis and arteritis, with a brief clinical history and course closely resembling that of the early stage of true tabes; this disease in the absence of treatment soon has added to it the features of true tabes, and in order to profit by a knowledge of it one must be keen to scent, quick to see, and bold to strike.

The insanities and pseudoinsanities due to syphilis may be subdivided into (1) a curable class due to toxemia without specific lesion or primary degeneration; (2) incurable dementia paralytica or general paralysis of the insane; and (3) a more or less remediable syphilitic pseudoparesis, a disease more common than pseudotabes, but essentially the same in pathology, having for its chief lesions pachymeningitis, leptomeningitis, and arterial disease. All the so-called types and subtypes of paralytic dementia can be understood, and can be differentially diagnosticated for purposes of prognosis and treatment, by simply keeping in mind the facts indicated in the last two terms of this classification; the particular case of paretic disease will be curable, incurable, or partially curable according as the lesions present are specific and recent, or are necrotic and degenerative, under the head of degenerations including both the conditions secondary to vascular and interstitial disease and those originating primarily in the nerve-elements.

In no branch of medicine and surgery is accurate

and thorough diagnostic study of cases more important than when the physician is confronted by the numerous problems of prognosis and treatment in nervous syphilis. About no other subject is so much complacency and optimism exhibited by practitioners young and old. Most men prefer to travel easy roads, and the magic of a syphilitic history solves for them at once the often troublesome problems of diagnosis, prognosis and therapeutics; and if by chance any doubts there be as to syphilis, while the possibility of it remains they have that happy resort—the therapeutic test. After all, the application of the therapeutic test, either for the purposes of diagnosis or prognosis, is an unscientific method of trying to reach a conclusion, and this is true in spite of the fact that it sometimes is practically useful. One should be competent to make both a diagnosis and prognosis without therapeutic experimentation, otherwise he is not competent at all for the work in hand. The therapeutic test sometimes leads to delusive opinions and inferences, as when it has been held, for instance, that because tabes fails to yield satisfactory results from antisyphilitic treatment, it is therefore frequently not of syphilitic origin.

It will perhaps be expected that I should say something about the dosage and methods of administering the great antisyphilitic drugs, mercury and the iodids. Time will not permit any critical discussion of this subject, and it will therefore be necessary to express my views by a series of dicta and aphorisms. Neither my experience nor my reading enables me to make statements of large general value with regard to the relative importance of mercury and iodids in nervous syphilis. Both mercury and the iodids, either separately or combined, are of value in the treatment of true specific lesions. In parasyphilitic diseases of the purest type—uncomplicated degenerative tabes and paresis—neither drug is curative, nor in any considerable degree beneficial. Even in the absence of recent specific lesions an interrupted treatment with moderate amounts of iodid will sometimes prove of service in maintaining the general health of the degenerative tabetic or paretic; but harm rather than

good is done in these cases by the long-continued administration of large doses of either mercury or the iodids. They should not be treated for periods of more than 4 to 6 weeks at a time, and these periods of treatment should not be repeated oftener than 3 times in a year. Without the use of the two great antisyphilitic sheet-anchors, mercury and the iodids, many true tabetics and paretics will for years maintain fair general health, suffering little from symptoms of irritation, and making little advance in ataxic, trophic and other degenerative manifestations. These patients do as well or better under the use of rest, attention to diet and general hygiene, and the careful use of a few drugs, such as hyoscin hydrobromate and codein.

No case of true tabes or general paralysis ever has been or ever can be cured by any treatment. The utmost that can be done is to improve the morale of the individual, subdue central irritation and conserve the general powers, and this is best accomplished by nonspecific measures. Mercury and the iodids are distinctly called for in the treatment of pseudoparesis and pseudotabes, but the good that will be accomplished by their use depends (1) on the subtype of disease; (2) on the general health of the patient, and (3) on the skill and care with which the drugs are used. Those forms of pseudoparesis and pseudotabes in which the evidences both of specific and degenerative lesions (secondary and primary) are clear, are never cured by any treatment; they are helped in so far as the specific lesions are of comparatively recent origin. In this class of cases considerable good can be done in retarding what would otherwise be the more rapid downward march of the disease. In rare cases of pseudoparesis and pseudotabes, the lesions being those of relatively recent arterial, meningeal and neural disease, an approximate cure can be affected by the skilful and energetic use of specific remedies.

With regard to all these affections we should rid ourselves of all delusive hopes and beliefs, for although good is often done, cures are infrequent. Mercury usually is of great value in acute and subacute in-

flammations and in the stages of recent tissue-formation, as in the earlier stages of specific lesions of membranes and vessels. It may be of value in any improvable period of a true specific disease, but is of little or no avail for the relief of parasyphilitic affections. The best methods of using mercury alone in the treatment of the improvable lesions of nervous syphilis are by energetic inunction, hypodermatic injections or the internal administration of the iodids of mercury.

On the whole — taking all cases at all stages together—a somewhat larger percentage of cases is benefited by iodids than by mercury. I do not greatly favor the heroic use of the iodids—the so-called American method of administering this drug. While in rare cases excessive amounts of potassium iodid or of some other iodid, amounts ranging from 300 to 600 grains daily have accomplished good results when smaller doses have failed, this, both in my direct and indirect experience (by indirect experience meaning the authenticated experience of patients who have been under such treatment and who have come from other hands into mine), is not usually the case. I fear that not a few of those who have reported such brilliant exceptional results from the use of enormous doses of the iodids have not recorded the numerous cases in which such treatment has utterly failed, and also have not made a careful comparison of their own results under these methods of dosage. Again and again I have seen what I regarded as injurious effects come from the heroic use of iodids not only in advanced tabes and general paralysis, but in such other degenerative diseases as combined sclerosis, amyotrophic lateral sclerosis, progressive muscular degeneration, disseminated sclerosis and paralysis agitans. It is an utterly unscientific procedure to saturate patients suffering from diseases such as these with potassium, lithium, or sodium iodid.

While I am not one of the enthusiastic adherents of the heroic American method—Americans must needs be heroic whether battling with foreign foes or with disease—I do not on the other hand place much faith in the comparatively small doses which are so

frequently used by our British confreres. Were I called to express my views in grains I should say that better 30 to 60 grains 3 times daily than 10 to 30 grains on the one hand, or 60 to 200 grains 3 times daily on the other. In the long run more good and considerably less harm will be done by adhering to this plan than by heroic medication.

While I can give no explanation for the fact, it is undoubtedly true that in some instances even of chronic syphilitic disease of the nervous system, mercury will do good when the iodids will not help, or when their beneficial effects have ceased. Idiosyncrasy probably has something to do with this fact. No man can pick these cases except by personal experimentation.

With regard to the relative value of the mixed and unmixed treatments I can only say that I believe the mixed treatment is on the whole of more value in chronic forms of nervous syphilis, while mercury or iodid alone can be used with more skill and effect in acute and subacute cases.

After all, however, experience has not furnished me, and I doubt whether it has supplied anyone else, with the data that would enable me to say just when it is best to use mercury alone, iodid alone, or the mercury and iodid treatment combined. He is safe in trying either of these methods if he only makes use of his method promptly and properly.